

## REMARKS

The Office Action dated July 18, 2006 has been received and carefully noted. The following remarks are submitted as a full and complete response thereto. Claims 1-15 are pending and submitted herewith for consideration.

Claims 1, 2, 4-9, and 11-15 stand rejected under 35 U.S.C. §102(e) as being anticipated by *Bechtolsheim* (U.S. Patent No. 6,829,217). The Office Action took the position that *Bechtolsheim* teaches each and every element recited in the rejected claims. Applicant traverses the rejection and respectfully submits that each of claims 1, 2, 4-9, and 11-15 recite subject matter that is not taught or disclosed by *Bechtolsheim*.

Applicant's independent claim 1, upon which claims 2-7 depend, recites a method of performing a table look-up in a network device. The method includes receiving a data packet through an input port of the network device, parsing said data packet into an index portion and a corresponding bucket portion, indexing, directly, said index portion to said corresponding bucket portion, and accessing address table information stored in an address look-up table using said bucket portion.

Applicant's independent claim 8, the independent claim from which claims 9-14 depend, recites an address table look-up indexing device. The device includes a receiver portion of a port of a network device that receives an incoming data packet, a data parser that parses said data packet into an index portion and a corresponding bucket portion, an indexer that directly indexes said index portion to said bucket portion, and an address

lookup device that accesses an address look-up table using said corresponding bucket portion.

Applicant's independent claim 15 recites a network switch. The network switch includes multiple ports used for receiving and exporting data, each of said multiple ports being connected to one another through a communications medium, and multiple Address Resolution Logic (ARL) devices, each of said multiple ARL devices being connected to one of said multiple ports, each of said multiple ports having a corresponding ARL device, each of said multiple ARL devices comprising. The device further includes a parser that parses data into an index portion and a corresponding bucket portion, an indexer that directly indexes said index portion to a corresponding bucket portion, and a look-up device that accesses table entries in a look-up table using said bucket portion.

Applicant submits that *Bechtolsheim* does not teach each and every element recited in claims 1-15. Specifically, *Bechtolsheim* teaches a per-flow dynamic buffer management scheme for a data communications device. Through per-flow dynamic buffer limiting, header information for each packet is mapped into an entry in a flow table, with a separate flow table provided for each output queue. Each flow table entry maintains a buffer count for the packets currently in the queue for each flow. On each packet enqueueing action, a dynamic buffer limit is computed for the flow and compared against the buffer count already used by the flow to make a mark, drop, or enqueue

decision. A packet in a flow is dropped or marked if the buffer count is above the limit. Otherwise, the packet is enqueued and the buffer count incremented by the amount used by the newly-enqueued packet. The scheme operates independently of packet data rate and flow behavior, providing means for rapidly discriminating well-behaved flows from non-well-behaved flows in order to manage buffer allocation accordingly.

However, *Bechtolsheim* does not teach indexing, directly, an index portion of a packet into to corresponding bucket portion from the same packet, and accessing address table information stored in an address look-up table using the bucket portion, as recited in each of claims 1-15. Therefore, Applicant submits that *Bechtolsheim* fails to teach each and every element recited in claims 1-15, and as such, reconsideration and withdrawal of the rejection of claims 1-2, 4-9, and 11-15 is respectfully requested.

In supporting the rejection of claims 1-2, 4-9, and 11-15, the Office Action cited to column 5, lines 4-12 of *Bechtolsheim* as teaching Applicant's recited step of parsing a packet into an index portion and a bucket portion. Lines 4-12 of *Bechtolsheim* teach that a packet header is parsed to determine the packet size, source address, destination address, and type of service, and additionally, the UDP source and destination port or the MAC source and destination and protocol type may be extracted. Thus, lines 4-12 teach parsing a packet header to determine one of several parameters, *i.e.*, packet size, source address, destination address, and type of service, etc. However, nowhere in lines 4-12 does *Bechtolsheim* teach parsing a packet into an index portion and a bucket portion.

*Bechtolsheim* merely says that the packet is “parsed” to determine one of several named parameters. There is no actual teaching of parsing the packet into two separate portions, *e.g.*, an index portion and a bucket portion.

Additionally, the Office Action cites to column 6, lines 37 to 50 *Bechtolsheim* as teaching Applicant’s recited step of indexing, directly, the index portion into the bucket portion. Lines 37 to 50 *Bechtolsheim* are directed to hashing flow identifying information from the packet header. Nowhere in lines 37-50 *Bechtolsheim* is indexing, directly, an index portion into a bucket portion taught, disclosed, or even suggested. Even if Applicant assumes that the flow identifying information corresponds to one of Applicant’s index portion or bucket portion, the teaching of lines 37-50 *Bechtolsheim* does not anticipate Applicant’s recited limitation of directly indexing an index portion into a bucket portion, as the flow information is 1) not taught as being parsed from the packet, and 2) is not directly indexed into a corresponding portion of the packet that was also parsed therefrom. Thus, Applicant submits that the cited portions of *Bechtolsheim* do not anticipate Applicant’s claimed invention. As such, reconsideration and withdrawal of the rejection of claims 1-2, 4-9, and 11-15 is respectfully requested.

Applicant submits that claims 3 and 10 are allowable, as claims 3 and 10 were not rejected in the Office Action. As such, the Examiner’s indication of allowable subject matter in claims 3 and 10 is respectfully requested.

In conclusion, Applicant submits that each of claims 1-15 recites subject matter that is not taught or disclosed by the cited prior art. As such, reconsideration and withdrawal of the rejection of claims 1-2, 4-9, and 11-15 is respectfully requested. Claims 1-15 are pending and submitted for consideration.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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